

II. Claims

This version and listing of the claims replaces all prior versions and listings of the claims.

1. (currently amended) A bone mineral density evaluation system for evaluating a bone mineral density from an X-ray picture of a mandible, said X-ray picture containing a picture of an artificial reference specimen disposed beside a picture of said mandible, said X-ray picture resulting from x-raying said artificial reference specimen disposed in such a position that said picture of said artificial reference specimen is positioned beside said picture of said mandible in said X-ray picture, said system comprising:

detecting means for detecting a ~~gradation~~ brightness of a particular portion of said picture of said artificial reference specimen;

correcting means for correcting the ~~gradation~~ brightness of said X-ray picture so as to make the ~~gradation~~ brightness of said particular portion of said picture of said artificial reference specimen as detected by said detecting means ~~comply with~~ equal to a preset standard value; and

evaluating means for evaluating the bone mineral density on the basis of the corrected ~~gradation~~ brightness of said X-ray picture as corrected by said correcting means;

wherein:

said evaluating means ~~makes~~ making evaluation on the basis of the corrected ~~gradation~~ brightness of a particular region of said picture of said mandible in said X-ray picture; ~~and~~

said particular region ~~includes~~ including a region corresponding to an alveolar bone portion around a first premolar.

2-7. (canceled)

8. (currently amended) The bone mineral density evaluation system according to Claim 1 wherein said evaluating means includes display means for displaying said corrected

gradation brightness of said particular region of the picture of said mandible in the form of histogram.

9. (currently amended) The bone mineral density evaluation system according to Claim 1 wherein said evaluating means includes judging means for judging a level of said bone mineral density on the basis of said corrected gradation brightness.

10. (previously presented) The bone mineral density evaluation system according to Claim 1, further comprising output means for providing together a plurality of evaluation results provided by said evaluating means for respective ones of a plurality of X-ray pictures.

11. (canceled)

12. (currently amended) A bone mineral density evaluation system for evaluating a bone mineral density from an X-ray picture of a mandible, said X-ray picture containing a picture of an artificial reference specimen disposed beside a picture of said mandible, said X-ray picture resulting from x-raying said artificial reference specimen disposed in such a position that said picture of said artificial reference specimen is positioned beside said picture of said mandible in said X-ray picture, a gradation brightness of said picture of said artificial reference specimen varying from portion to portion, said system comprising:

detecting means for detecting an average value and a deviation of the gradation brightness of said picture of said artificial reference specimen;

correcting means for correcting the gradation brightness of said X-ray picture so as to make the-average value and the deviation as detected by said detecting means comply with equal to a preset standard average value and a preset standard deviation, respectively; and

evaluating means for evaluating the bone mineral density on the basis of the corrected gradation brightness of said X-ray picture as corrected by said correcting means,

wherein said evaluating means ~~makes~~ makes evaluation on the basis of the corrected ~~gradation brightness~~ of a particular region of said picture of said mandible in said X-ray picture,

wherein said particular region ~~includes~~ including a region corresponding to an alveolar bone portion around a first premolar.

13. (canceled)

14. (canceled)

15. (currently amended) The bone mineral density evaluation system according to Claim 12 wherein said evaluating means includes display means for displaying said corrected ~~gradation brightness of said particular region of the picture of said mandible~~ in the form of histogram.

16. (currently amended) The bone mineral density evaluation system according to Claim 12 wherein said evaluating means includes judging means for judging a level of said bone mineral density on the basis of said corrected ~~gradation brightness~~.

17. (previously presented) The bone mineral density evaluation system according to Claim 12, further comprising output means for providing together a plurality of evaluation results provided by said evaluating means for respective ones of a plurality of X-ray pictures.

18. (previously presented) The bone mineral density evaluation system according to claim 12, wherein said artificial reference specimen is an aluminum block.

19. (previously presented) The bone mineral density evaluation system according to claim 18, wherein said aluminum block has a stepped structure.

20. (previously presented) The bone mineral density evaluation system according to claim 12, wherein said artificial reference specimen has a stepped structure.

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21. (previously presented) The bone mineral density evaluation system according to claim 1, wherein said artificial reference specimen is an aluminum block.

22. (previously presented) The bone mineral density evaluation system according to claim 21, wherein said aluminum block has a stepped structure.

23. (previously presented) The bone mineral density evaluation system according to claim 1, wherein said artificial reference specimen has a stepped structure.